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| 09/606,052 | 06/28/2000 | Roy Mauger | 476-1929 | 5678 |
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| BARNES & THORNBURG P.O. BOX 2786 CHICAGO, IL 60690-2786 | | | NGUYEN, BRIAN D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2661 | |

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/606,052

Applicant(s)

MAUGER ET AL.

Examiner

Brian D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed 7/19/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 31-101 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 31-54 and 59-101 is/are rejected.
- 7) ☒ Claim(s) 55-58 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 78-106 have been renumbered 73-101. The applicant is requested to renumber claims 78-106 in response to this Office Action.

2. Claims 34, 41, 49-51, 58, 73-88, and 101 are objected to because of the following informalities: Appropriate correction is required.

Claim 34, line 1, it is suggested to change "A method as claimed in claim 34" to ---A method as claimed in claim 33---.

Claim 41, only three labels are mentioned in the claim. A second Layer 1 LSP seems to be missing.

Claim 49, line 2, "levels of paths" seems to refer back to "levels of LSPs" in lines 5-6 of claim 43. If this is true, it is suggested to change "levels of paths" to ---levels of LSPs---.

Claim 58 has the same problem as claim 41.

Claim 73, line 14, "levels of paths" seems to refer back to "levels of LSPs" in line 6. If this is true, it is suggested to change "levels of paths" to ---levels of LSPs---.

Claim 79, line 2, "levels of paths" seems to refer back to "levels of LSPs" in line 6 of claim 78. If this is true, it is suggested to change "levels of paths" to ---levels of LSPs---.

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Claim 88 has the same problem as claim 41.

Claim 101 has the same problem as claim 41.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 39, 51, 64, 81, 93 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. "the Layer 1 LSPs comprises MPLS tunnels that have static reservation" in line 1-2.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 60-72 and 85-101 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 60, line 15, "it" is unclear.

Claim 85, line 1 "it" is unclear.

Claim 89, line 13 "it" is unclear.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

8. Claims 31-39, 43-51, 59, and 73-78 are rejected under 35 U.S.C. 102(e) as being anticipated by Meempat et al (6,778,496).

Regarding claim 31, Meempat discloses a method of routing an information packet over a label switched path (LSP) (see col. 4, lines 46-53) between first and second end stations in a virtual private network (VPN) defined over a network arrangement of routers, the method comprising the step of: attaching to the information packet at a network edge a sequence of labels indicative of a hierarchical arrangement of levels of paths (see col. 11, lines 43-49), wherein a lowermost level of the hierarchical arrangement comprises a mesh of Layer 1 LSPS between adjacent routers, a next higher level of the hierarchical arrangement comprises a mesh of Layer 2 LSPS, each Layer 2 LSP comprising a concatenated sequence of Layer 1 LSPS, and

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wherein the LSP between the first and second end stations comprises an uppermost level of the hierarchical arrangement being specified by a pair of the Layer 2 LSPS (see a router network in figure 1 & 2; different layers in figure 4; and a different level of the hierarchy in col. 11, lines 43-49).

Regarding claim 32, Meempat discloses dynamic multiplex (see col. 1, lines 7-20; col. 4, line 46-col. 5, line 6).

Regarding claims 33-34, Meempat discloses routers (14, 16) at different levels (local/national/international) (see figures 1 and 2).

Regarding claim 35, Meempat discloses the pair of Layer 2 LSPS specifying the LSP between the first and second end stations comprises a first Layer 2 LSP between a network edge router serving the first end station and a central router and a second Layer 2 LSP between the central router and a network edge router serving the second end station, the central router connecting the two Layer 2 LSPS to form the LSP between the first and second end stations (see figures 1 and 2 where central router is router is a router located between A and B of figure 2).

Regarding claim 36, Meempat discloses the LSP between the first and second end stations comprises a session dynamically multiplexed onto the first and second Layer 2 LSPS, the session being switched between the first and second Layer 2 LSPS at the central router (see col. 1, lines 7-20; col. 4, line 46-col. 5, line 6).

Regarding claims 37-39, Meempat discloses MPLS tunnels (see col. 11, lines 43-49).

Regarding claims 43-51 and 59, claims 43-51 and 59 are method claims that have substantially the same limitations as the respective method claims 31-39. Therefore, they are subject to the same rejection.

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Regarding claims 73-81, claims 73-81 are system claims that have substantially the same limitations as the respective method claims 31-39. Therefore, they are subject to the same rejection.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 40-41, 52-53, and 82-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meempat et al (6,778,496).

Regarding claims 40-41, Meempat discloses a stack of labels, each of which corresponds to a different level of the hierarchy (see col. 11, lines 43-49). Meempat does not specifically disclose four labels. However, to use any specific number of labels, for example 4, is based on the size of the network. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use four labels so that packet can be transmitted across wide area network.

Regarding claims 52-53 and 82-83, claims 52-53 and 82-83 have substantially the same limitations as claims 40-41. Therefore, they are subject to the same rejection.

11. Claims 42, 54, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meempat et al (6,778,496) in view of Cao et al (6,721,269).

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Regarding claim 42, Meempat does not specifically disclose the Layer 1 and Layer 2 LSPS are established through one of RSVP Traffic Engineering Protocol and Constraint-Routed Label Distribution Protocol. However, the use of these protocols well known in the art. Cao discloses the use of these protocols (see col. 6, lines 19-23). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the well known protocol as taught by Cao in the system of Meempat in order to meet the design criteria of a particular implementation.

Regarding claims 54 and 84, claims 54 and 84 have substantially the same limitations as claim 42. Therefore, they are subject to the same rejection.

Allowable Subject Matter

12. Claims 55-58, 60-72, and 85-101 would be allowable if rewritten to overcome the objection(s) and/or rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D Nguyen whose telephone number is (571) 272-3084. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11/24/04



BRIAN NGUYEN
PRIMARY EXAMINER